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EXCLUSION OF CHILDREN FROM DANGEROUS TRADES

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In the address of His Excellency, Curtis Guild, Jr., to the Legislature of Massachusetts of 1907, is the suggestion that Massachusetts take the lead in this country in the medical inspection of children in factories. In order to bring about such an advanced step, Governor Guild further suggested a reorganization of the labor laws, so that those laws which dealt more especially with the health of persons employed in factories might be enforced by physicians under the supervision of the central health authority, the State Board of Health. These suggestions were favorably accepted by the legislature and embodied in statute provisions, so that in July, 1907, the inspection of factories and other industrial establishments, not only for the purpose of safeguarding the health of those who labor in such buildings, but of promoting the public health, became an important branch of public health work. From the point of view of public health, therefore, factory inspection came to mean the medical inspection of factories.

With fifteen well trained physicians in the field, under the supervision of the State Board of Health, we have had an opportunity while improving the sanitary conditions in the factories to make inquiries concerning the health of seventy-eight thousand minors under eighteen years of age, and to examine physically some thirty-five hundred. During 1908 and 1909 the reports of the physicians led to another needed reform, concerning which Mr. Guild in his address before the National Child Labor Conference in January, 1910, made special mention. "The inspectors," he said, "have discovered among other things that certain occupations damaging to all health are particularly dangerous if not deadly to those who have not attained the strength of adult age. . . . The State Board of Health should be given authority to describe which occupations or processes of manufacture are peculiarly dangerous to minors. The State Inspectors of Health working under their

control should be given authority to remove children engaged in such specified occupations or to transfer to some other process, in the same occupation, that may not be similarly dangerous."

The Massachusetts State Board of Health had discovered what apparently was overlooked by authorities responsible for laws on dangerous trades in other states, that a distinction should be made between industries where all work is undertaken at the risk of the worker and industries where only certain processes are a menace to health.

The Legislature of 1910 passed an act which, it will be noted, involves not those occupations which are dangerous to life or limb, but trades, processes of manufacture, occupations or methods deemed by the State Board of Health to be sufficiently injurious to the health of minors as to justify their exclusion therefrom.

"The State Board of Health may from time to time upon the written application of any citizen of the commonwealth, or upon its own initiative, after such investigation as it considers necessary, determine whether or not any particular trade, process of manufacture or occupation, or any particular method of carrying on such trade, process of manufacture or occupation, is sufficiently injurious to the health of minors under eighteen years of age employed therein, to justify their exclusion therefrom, and every decision so rendered shall be conclusive evidence of the facts involved therein, except so far as the same may later be revoked or modified by a subsequent decision of the board. Whoever, after being notified that the State Board of Health has determined that a particular trade, process of manufacture, occupation or method is injurious as above stated, employs therein a minor under eighteen years of age shall be punished by a fine of not more than two hundred dollars and not less than fifty dollars for each offense, unless prior to the time of such employment such determination shall have been revoked or modified so as not to include the employment complained of."

The above act was approved in April, 1910, and in July of the same year the State Board of Health declared the processes named in the following schedule to be injurious to the health of minors within the meaning of the law, provided that the law "shall not apply to any factory wherein such special measures are adopted as appear to the State Inspector of Health to be reasonably practicable and meet the necessities of the case." (Approved July 7, 1910.):

- I. Processes Involving Exposure to Poisonous Dusts or Substances.
 1. Processes in the manufacture of white, red, orange or yellow lead.
 2. Processes in the manufacture of lead pipe, solder and plumbers' supplies.
 3. Cutting metal articles with a mixture of lead and tin, or lead alone.
 4. Processes involving exposure to lead and the dust of plumbago in electrotyping.
 5. Processes involving the handling of white lead or lead monoxide (litharge) in rubber factories.
 6. Lead paint grinding.
 7. Lead working in the manufacture of storage batteries.
 8. File cutting by hand.
 9. Typesetting, cleaning or handling type in printing offices.
 10. Glazing in pottery establishments.
- II. Processes Involving Exposure to Irritating Dusts.
 1. Processes involving exposure to the dust of graphite in the manufacture of stove polish.
 2. The operation of bronzing in the lithographing business, and the consequent exposure to bronze powder.
 3. Cutlery grinding, and grinding or polishing in the manufacture of machinery, machine parts and metal supplies; and grinding, glazing or polishing on emery or buffing wheels.
 4. Cutting, boring, turning, planing, grinding, doming, facing or polishing pearl shell.
 5. Talc dusting in rubber works.
 6. Sorting, dusting, cutting or grinding rags.
- III. Processes Involving Exposure to Poisonous Gases and Fumes.
 1. Spreading rubber on cloth and the consequent exposure to naphtha in the manufacture of rubber goods.
 2. The use of naphtha in cement work in rooms in shoe and rubber factories which are not provided with mechanical means of ventilation where the mixture containing naphtha is allowed to remain in uncovered receptacles.
 3. Processes involving exposure to naphtha in the manufacture of japanned or patent leather.
 4. Exposure to escape of fumes or gases from lead processes.

- IV. Processes Involving Exposure to Irritating Gases and Fumes.
 - 1. Gassing in textile factories.
 - 2. Singeing in print works, bleaching and dyeing works.
 - 3. Dipping metal in acid solutions.
- V. Processes Involving Exposure to Extremes of Heat and other Conditions which Promote Susceptibility to Disease.
 - 1. Melting or annealing glass.

It will be seen that the Massachusetts law is so elastic as to be applicable to one establishment, to any department in an establishment, or even to a single minor. This is its most valuable feature from an educational point of view. It also insures fair treatment to both the employer and the minors. To illustrate with an actual case: In an establishment where minors were exposed to naphtha and the possibility of naphtha intoxication, there were a large number of uncovered receptacles containing naphtha, so that the State Inspector of Health—after consultation with the office of the State Board of Health—wrote the following letter to the employer:

"I desire to call your attention to Chapter 404 of the Acts of 1910 and to the schedule of processes declared by the State Board of Health to be injurious to health. Your attention is particularly called to paragraph 2, Section III, in the list of processes. In your making up department there are a large number of uncovered receptacles containing naphtha and naphtha cement, and no special measures are adopted which appear to me to be reasonably practical to protect the minors employed in that department from exposure to the poisonous fumes. Unless such practical measures are adopted all minors under eighteen years of age must be excluded from that department in accordance with Chapter 404 of the Acts of 1910. Kindly inform me as to what steps you take in the matter." The result was a letter from the employer requesting consultation with the State Inspector of Health. This request was granted, and a short time afterward the employer sent the following letter to the inspector:

"We have ordered covers for all of the naphtha and naphtha cement receptacles in our making room in accordance with your suggestions. These undoubtedly will be completed at an early date. We trust that this action is to your satisfaction."

Another type of order resulted in the following case: A boy, sixteen years of age, was found at work in a fairly well ventilated room, coming in contact with considerable lead. In this case the State Inspector of Health was directed to warn the boy and his employer to take exceptional care in regard to keeping the work-room clean and the minor to keep himself—especially his hands—clean. The inspector was further instructed to make a physical examination of the minor and to visit the establishment a month later to learn whether sufficient precautions were taken to protect the minor's health, and to make a second examination of the minor's physical condition. The inspector would, of course, explain the danger from the oxidation of lead particles left lying about on the machines and floor, and point out the danger of handling food with the hands before thorough cleansing. In other words, we recognize an educational value in the enforcement of the law in question, and try, as far as possible, to keep the minors at work without endangering their health. In some instances, as, for example, in a dusty trade, the minors excluded from those departments wherein dust was generated in the course of manufacture have been permitted to work in other departments of the same industry where they were not exposed to injurious influences of any kind.

During the last year 100 children have been helped by the act,—(a) seventy-four by being allowed to continue at their work under certain conditions, (b) ten by being transferred to other departments or processes than the one deemed injurious, and (c) sixteen by exclusion from work.